

REMARKS

Claims 59-62 and 80-115 were pending prior to this Amendment response. Claims 1-58 have previously been cancelled. Claims 59-62 are withdrawn. Claims 80-115 stand rejected.

Claim 80 is currently amended for clarification and proper antecedent basis. Support for these amendments may be found throughout the instant specification, for example, at page 28, ¶80 (or as published ¶83) which states that sense and/or antisense RNA amplification results from transcriptional promoters at both the 5' and 3' ends of the first and second strand of cDNA. Claims 88 and 89 have been cancelled and the subject matter of which have been incorporated into claim 80. No new matter is introduced by these amendments. Reconsideration and withdrawal of the pending rejections is respectfully requested.

TITLE

The Examiner has requested a new title that clearly indicates the invention to which the claims are directed. Applicants present herewith a new title.

REJECTIONS UNDER 35 U.S.C. §103

Claims 80-115 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Chenchik, et al. (U.S. 5,962,272) in view of Van Gelder, et al. (U.S. 5,545,522). Applicants respectfully traverse the Examiner's rejection.

Claim 80 as presented herein, has been amended to include a first strand synthesis primer and a terminal continuation oligonucleotide each having a transcriptional promoter sequence and synthesizing a plurality of RNA transcripts. Figure 3 demonstrates that both sense and antisense RNA transcripts are formed simultaneously.

The Chenchik reference describes a method of preparing a DNA molecule complementary to an RNA molecule using a template switching oligonucleotide for synthesizing and cloning full length cDNA, or cDNA fragments that corresponds to the complete sequence of 5'-mRNA. The Examiner admits that Chenchik does not "explicitly disclose the use of these sequences to form a plurality of RNA transcripts from the synthesized double-stranded cDNA"

(Office Action-page 3, ¶2). As previously argued, the Chenchik method does not provide a plurality of RNA transcripts, but rather generates full length cDNA from RNA forming double-stranded cDNAs for full length cDNA libraries, for example.

The Examiner has combined the Chenchik reference with Van Gelder, et al. As previously presented, Van Gelder reports of an *in vitro* transcription method as a means of RNA amplification. Van Gelder does not teach or provide guidance for using a synthesis primer and oligonucleotide where both comprise a transcriptional promoter sequence of the claimed invention. Van Gelder does report the production of antisense RNA; however, the claimed method is directed to a modification where phage promoters are at both the 5' and 3' ends of double-stranded cDNA, thereby transcribing sense and antisense RNA. Furthermore, since the Van Gelder method sufficiently fulfills the need in the art without any modification, there is no motivation to modify the Van Gelder primer complex having a primer operably linked to a RNA polymerase promoter region (Figure 1) to obtain the combination of a synthesis primer and oligonucleotide of Chenchik in order to amplify RNA.

However, the Examiner contends that it would have been obvious for one of ordinary skill in the art to use a terminal continuation oligonucleotide or “a ‘CapSwitch’ oligonucleotide and a cDNA synthesis primer comprising a transcriptional promoter sequence (as disclosed by Chenchik et al.) to form a plurality of RNA transcripts from double-stranded cDNA because Van Gelder disclosed the advantageous use of such promoter sequences for that purpose” (Office Action- page 5, ¶1). Applicants, however, respectfully assert that there is no teaching or motivation to combine the method of using the CapSwitch oligonucleotide and synthesis primer of Chenchik comprising a transcriptional promoter sequence and the formation of a plurality of RNA transcripts of Van Gelder in order to result in the claimed invention.

Therefore, since there is no motivation or suggestion to combine the Chenchik and Van Gelder publications to obtain a method of amplifying RNA using a synthesis primer and terminal continuation oligonucleotide where each has a transcriptional promoter sequence, applicants respectfully request reconsideration and withdrawal of the §103 rejection in view of the above arguments.

Independent claim 80, and all claims depending therefrom, therefore define patentable subject matter over Chenchik and Van Gelder. The present invention as recited in claims 80-87 and 90-115 is believed neither anticipated by nor rendered obvious in view of, and therefore believed allowable over, the cited art of record. Therefore, for the above-presented arguments, Chenchik and Van Gelder do not teach or make obvious the method of amplifying RNA using a synthesis primer and terminal continuation oligonucleotide where each has a transcriptional promoter sequence to form sense and antisense RNA as presently claimed. Reconsideration and withdrawal of these rejections is respectfully requested, as claims 80-87 and 90-115 are not obvious in view of Chenchik and Van Gelder.

Dependent Claims

Applicants have not independently addressed all of the rejections of the dependent claims. Applicants submit that for at least similar reasons as to why independent claim 80 from which all of the dependent claims depend are believed allowable as discussed *supra*, the dependent claims are also allowable. Applicants however, reserve the right to address any individual rejections of the dependent claims and present independent bases for allowance for the dependent claims should such be necessary or appropriate.

Thus, Applicants respectfully submit that the invention as recited in the claims as presented herein is allowable over the art of record, and respectfully request that the respective rejections and objections be withdrawn.

CONCLUSION

Based on the foregoing amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the rejection of claims and allowance of this application.

AUTHORIZATION

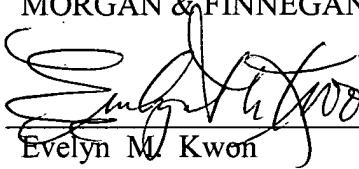
The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 1079-4015US3. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 13-4500, Order No. 1079-4015US3. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,

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